

1917 Summer

NATCO on the Farm



Copyright 1915
by
NATIONAL FIRE PROOFING COMPANY

Natco On The Farm

"BUILDINGS THAT LAST ARE
THE BUILDINGS THAT PAY"

BRANCHES

NEW YORK, N. Y.

CHICAGO, ILL.

WASHINGTON, D. C.

COLUMBUS, O.

BOSTON, MASS.

PHILADELPHIA, PA.

DETROIT, MICH.

CANTON, O.

SYRACUSE, N. Y.

TORONTO, ONTARIO, CANADA

Twenty-three Factories in the United States

National Fire Proofing Company

Organized 1889

Main Office,

Pittsburgh, Pennsylvania

Introduction

The one place above all others where buildings should be made indestructible is on the farm. Greatly determining the value of the property, the comfort of the family, the safety of crops and stock, they should be proof against heat, cold, moisture, decay and fire.

In the old pioneering days, homes were built of massive oak timbers. Many such buildings are still in existence; but additions to them show the inferiority of present-day lumber. Frame buildings are fast becoming a thing of the past.

This book deals with the most durable building material in existence—Natco Hollow Tile. It shows how many farmers have settled the building question for good.

We are recognized authorities on hollow tile construction. Organized in 1889, we have since fireproofed the majority of the skyscrapers of North America; we have furnished thousands of miles of

Natco Barn (Stuccoed) and Natco Imperishable Silos at Vineland, N. J.



Introduction

(Continued)

conduits for electrical wires; we have built grain elevators that have a combined capacity of over 30,000,000 bushels; we have fireproofed apartment buildings, schools, hospitals, residences, warehouses, garages, creameries, etc., in all parts of the country; our Natco Imperishable Silos are preserving sweet, succulent silage on thousands of farms—Natco Buildings are springing up everywhere.

With long and extensive experience to draw upon, we are in position to help you solve your building problems. Our Agricultural Department gives splendid advice—free. Take advantage of it—as hundreds of others are doing.

Read this book carefully. There is no place where the questions of fire risk and insurance are as important as on the farm. Learn of the safety and money-saving certainty of Natco Farm Buildings.

Natco Barn at Chain Bridge, Va., ready for Stucco, which is an Exterior Cement Plaster Finish.





Cow Barn of E. A. Schmalz, Stirling, N. J., R. S. Shapter, Architect,
Summit, N. J. Built of Natco XXX Tile, Stucco (Cement) Finish.
See details below and on opposite page.

Barns

The illustrations on the next eight pages give an idea of the variety of materials and structural possibilities of Natco Hollow Tile for barns. When you are ready to build, ask for information. Advice free.

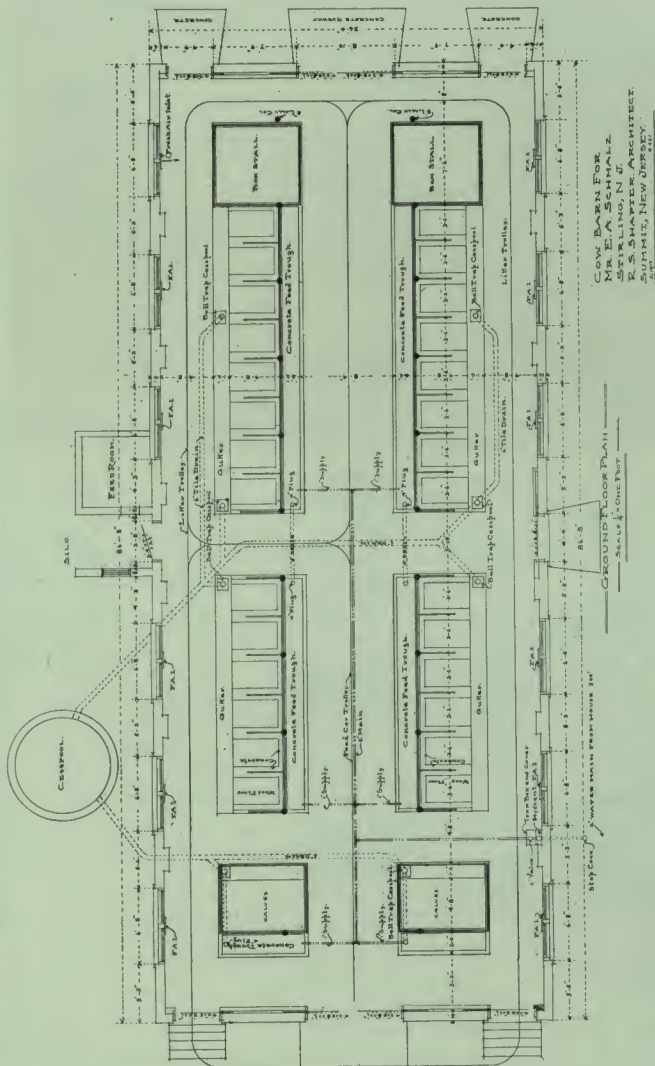


TRANSVERSE SECTION
Scale 1/8" = 1'-0"



EAST END ELEVATION
Scale 1/8" = 1'-0"

SEE BOOK FOR
No. E. A. SCHMALZ
STIRLING, N. J.
R. S. SHAPTER ARCHT.
SUMMIT, NEW JERSEY



Many of the finest barns in the country are being built of Natco Hollow Tile. Nevertheless,
 Natco construction is just as economical for the man of moderate means as for the well-to-do.



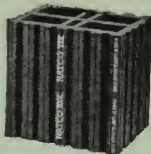
Natco Barn and Silo at Millington, N. J., nearing Completion and before Stucco has been Applied to Tile.

Natco Barns

Are you thinking of building a barn? Plan well and for the future. The barn is really your workshop. It should thoroughly protect your stock and farm products from fire and every bad weather condition. It should be convenient, practically free from upkeep expenses, and so attractive in appearance as to add to the value of the farm.

Note the illustrations of Natco Hollow Tile Barns on these first few pages. They look right and are practical. Any size or style of Natco barns may be had. They are popular not only with the man who has considerable money to spend but even more popular with the farmer of moderate means who appreciates the fact that durability means economy.

Natco Service is yours for the asking. We will gladly quote prices and talk over plans, and our agent in your vicinity will give your order and shipments closest



Natco XXX
Hollow Tile.



John Merley's Barn of Natco Glazed Building Tile at Osnaburg, Ohio.

Natco Barns

(Continued)

attention. If you will note page 3 you will see that our branches are conveniently located. Write to the nearest one.

On these pages we do not show designs of hog houses or sheep sheds. There are many such buildings of Natco Tile in use, however. Too much cannot be said regarding the adaptability of Natco Hollow Tile for hog houses. Swine are peculiarly susceptible to many maladies due to poor surroundings. Natco Hog Houses are warm in winter, cool in summer, easily kept clean and well ventilated.

Dairy barns attract the chief attention. Built of Natco Hollow Tile, the hard burned, clean and non-absorbent surfaces make them splendidly adapted to the sanitary handling of milk.



Natco Glazed Building Tile.



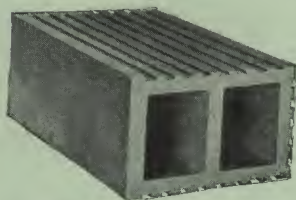
Livery Barn at Mercer, Pa. Built of Natco Building Tile.
Dimensions 80 x 140 feet.

Livery Barns

Above we have a view of a splendid livery barn erected at about the same cost as a wooden barn and much cheaper than if built of brick. The walls, both side and rear, are 13 inches thick, being built up of a combination of 8 and 4 inch Natco Building Tile. The front is brick backed with 5 x 8 x 12 inch Natco Building Tile.

Natco Hollow Tile are peculiarly adapted for such a purpose. With feed as high as it is, the importance of an even temperature throughout the winter cannot be overlooked; the dead air spaces in the walls mean a big saving in feed as the temperature inside the barn will rarely go below zero. Then, too, in summer the barn will be cooler. Another item is insurance—the fire risk is reduced to a minimum.

Rough usage does not disfigure the walls, no painting is needed and the building stays permanently attractive. See next page for descriptive matter on Natco Bakup and Natco Building Tile.

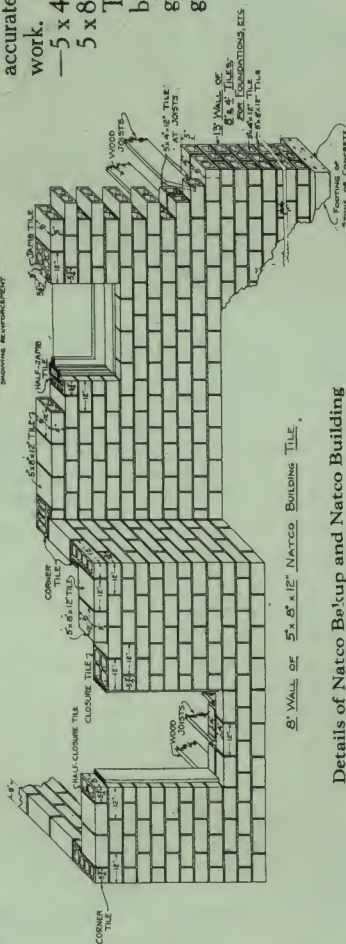
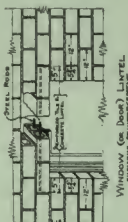
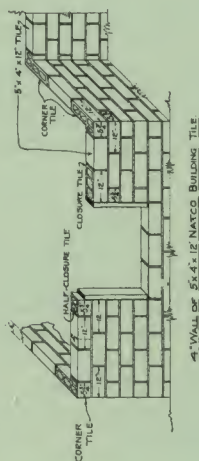


Natco Bakup and Natco Building Tile.

These tile were originally designed for backing up brick work only, but have since developed into material for general building purposes on account of their convenient sizes, cheapness of laying, etc., hence the designation "Natco Building Tile" when this material is used for purposes other than the backing of face brick. Compare the detail of this tile with that of Natco Glazed Building Tile found on

page 18 and you will note that the former material is made in smaller units, and the dimensions are such that the tile will bond accurately with brick work. Note the sizes— $5 \times 4 \times 12$ in. and $5 \times 8 \times 12$ in.

These tile may be had either glazed or unglazed.



Details of Natco Bekup and Natco Building Tile Construction.



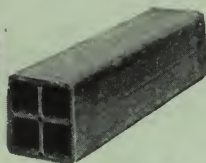
Horse Barn with Hay Loft and Buggy Shelter, Built of
Natco Second Quality Conduit Tile.

Natco Second Quality Conduit Tile for Building Purposes

We annually make millions of feet of conduit tile for electrical companies. Naturally some of them are blistered, have the ends chipped and show small cracks, or are slightly warped. These are rejected for conduit purposes, but the slight defects do not lessen their value as building tile, and we call them our "Second

Quality Conduits." These tile are salt glazed and as durable as any we make, and meet the demand for a low priced building material that is fire, wind, and moisture-proof. Being $1\frac{1}{2}$ to 3 feet in length, and in thickness from 9 to 13 inches, they lay up a much larger wall area per unit than brick. They cost less than any other form of masonry, both as to material and labor.

Complete information in our free booklet, "Natco Glazed Tile for Building and Drainage Purposes."



Natco Second Quality Conduit Tile.



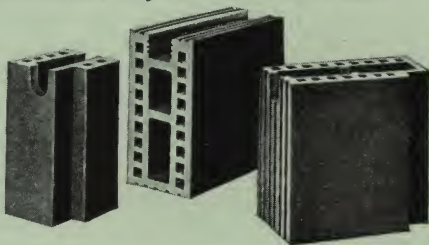
18 ft. x 36 ft. Natco Imperishable Silo and Natco Barn, 40 ft. x 150 ft., on High Hill Dairy Farm, Pulaski, Pa.

The Natco Imperishable Silo

“The Silo That Lasts for Generations”

This silo was the entering wedge by which Natco products were introduced to the farmer. Thousands of them are in use. Through coldest winters and driest summers they are found to keep the ensilage sweet and juicy and free from mold. Here's the silo of no worries and no adjustments, and it's winning its way everywhere. Our list of Natco Owners in your State will be sent free upon request. Get the owners' opinion—our best advertisement.

Full details of the Natco Imperishable Silo are found in our Silo Catalog. Send for it. We will, however, dwell here upon a few of the more important points of the Natco Silo.



Natco Imperishable Silo Tile.



Putting the Silage where it's Safe—in a Natco Imperishable Silo.

It is, first of all, an excellent ensilage preserver in all parts. The salt glazed or vitrified surfaces of the tile absorb no moisture from the ensilage and admit no air to it. The dead air spaces are frost-resisting and maintain a remarkably even temperature within the silo through all changes of weather.

The illustration on the preceding page shows the three kinds of tile used in the Natco Imperishable Silo. The tile at the left and right form the door jambs. The other is the channel tile of the wall. Note the large air spaces and also the small tubular openings in the shell of each tile providing an anchorage for the mortar. In the channel, and covered with mortar, are placed the continuous steel reinforcing bands which give our silo strength to resist practically any pressure. With each silo we furnish reinforcing, doors, etc., and the roof frame for our Michigan hip roof.

The Natco Imperishable Silo is weather-proof, decay-proof, fire-proof, and vermin-proof. It is attractive and convenient, and a most valuable addition to your farm buildings.

Send for the silo catalog and a List of Owners in your State.

Natco Drain Tile

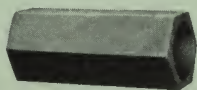
The immense advantages of proper drainage are known to almost everybody; and there is very little land naturally so dry as not to be improved by it.

Natco Drain Tile are made of high grade shale clay properly burned and glazed. All of our tile as shown below are salt glazed—which makes crumbling and consequent choking of the drain impossible. As all water enters at the joint, porosity of the surface is unimportant. Take special notice of our two-way and three-way drain tile. Each duct of each tile has one-fourth more carrying capacity than a round tile of the same diameter. The webs, or partitions, help keep roots out and prevent clogging. Also shown below is our Natco Lock Joint Sewer Tile, for storm or sanitary sewers, culverts, etc. They are salt glazed, tight, everlasting, and have great structural strength, also may be laid up in full or half sections on the line of work and lowered into trench.

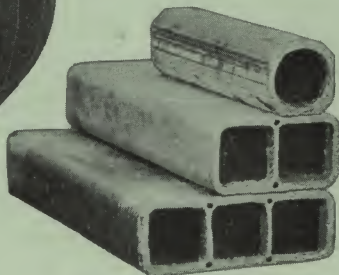
Sizes, prices, and carrying capacities upon application. Highway and drainage commissioners will do well to consult us. Correspondence invited.



Natco Lock Joint Sewer Tile. Full Section 36 in. Diameter, 6 ft. Long, Suspended 24 Hours after Being Laid Up.



Hexagonal Salt Glazed Drain Tile.



One, Two and Three-duct Salt Glazed Drain Tile.



A Neat, Safe, Durable Home, Built of Natco XXX Hollow Tile, Stuccoed.

Natco Farm Homes

Build a home you'll be proud of. Make it attractive, durable, and fire-safe.

Put your home first. Let the other farm buildings follow. Without a doubt, if the home and family were given first consideration, there would be fewer of our young people leaving the farm. Travel the country over and see how very few farm homes show the attention they should have. The barns, silo, hog houses, etc., are often given the first consideration.



Natco XXX Tile.
(Patented.)
Used exclusively for
Stucco (Cement) Finish.

Investigate the beautiful, permanent construction of Natco Hollow Tile residences. We can show you hundreds of examples of Natco homes erected at a moderate cost, which are a constant source of pride to the owners.

The advantages of Natco construction for all types of buildings, large and small, are well understood. Natco Hollow Tile cannot



Natco XXX Hollow Tile Residence in Course of Construction.

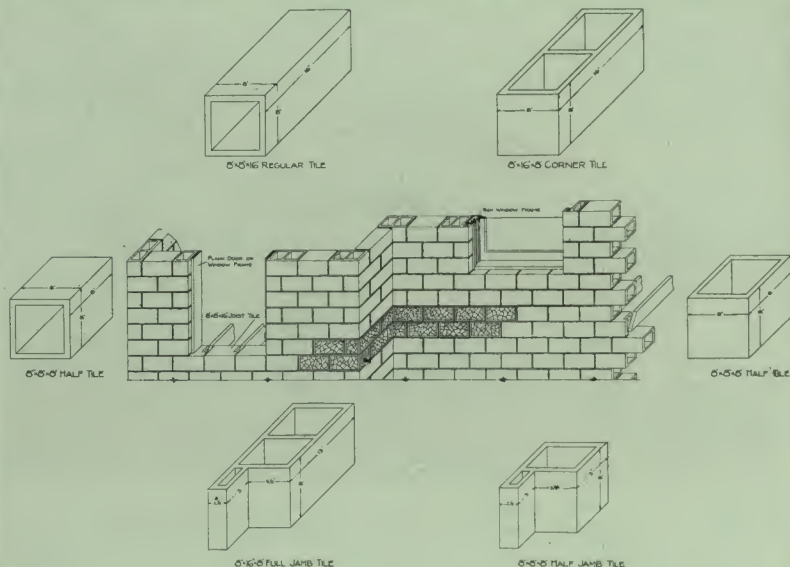
burn. Neither can dampness, climate, severe changes of temperature or age cause the slightest deterioration. It is a material that "lasts for generations."

The Natco house needs no painting or repairing. It is warmer in winter and cooler in summer, because the dead air spaces of the tile blanket the structure with complete insulation against heat, cold, or moisture. Natco Hollow Tile are adapted to any sort of architectural treatment. The house may be as plain or as elaborate as desired.

Note the illustrations on these and following pages. They show our Natco XXX Tile for covering with a cement coating or stucco; also our Natco plain and rock face Building Tile. On page 21 is shown a home built of Natco Second Quality Conduit Tile—inexpensive but comfortable. The illustrations here show Natco XXX Tile. Details on the following two pages.



Six Air Spaces and a Double Cross Web. Unlike Any Other.



8 inch Wall of Plain Natco Glazed Tile, with Part of Two Courses in Rock Faced Tile. Either type may be had.

Some "Do's" and "Don't's"

The rules for properly erecting Natco farm buildings are not many. Here are the most important by which to guide the work of your mason and men:—

1. Stack each size of tile by itself—don't dump them from a truck. This saves breakage, and the tile are ready-sorted for the mason.
2. Don't patch up with brick. We ship a percentage of fractional tile with each order; use them.
3. Don't weaken your mortar by using too much lime.
4. Cover up the top course of tile at quitting time—protect your work.
5. Be sure all joints are well sealed.

6. Put proper drips on the under side of sills.

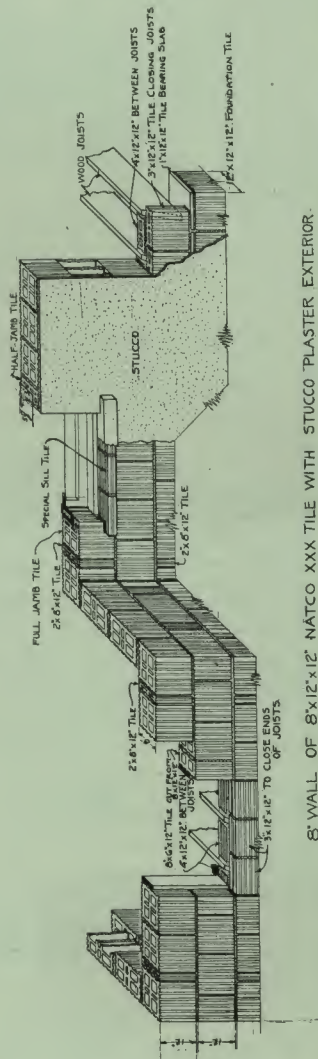
7. Use a waterproofing compound in the finish coat of your stucco or cement plaster.

8. Don't apply stucco in freezing weather.

9. Use facing tile (which we provide) at the ends of beams. Refrain from cutting holes in tile if possible.

10. Don't guess where to use various sizes of tile. Send your plans to us and we will make notations on same.

These are about all of the general "do's" and "don't's" necessary—building with Natco Hollow Tile is really easier than with any other material. A good many farmers are so handy with the trowel, mortar and plumb line that they erect the smaller buildings themselves. However, if the structure is to be of considerable size, larger say than the milk house on page 35 or the manure shed shown on page 40, we advise that a competent mason be employed. Like any other kind of work, experience is necessary to a first class job and while we know Natco Hollow Tile to be comparatively easy to handle yet we advise that good workmen be employed to make best use of what farm labor you have.



8" WALL OF 8"x12"x12" NATCO XXX TILE WITH STUCCO PLASTER EXTERIOR.



A Natco Farm Home Like This Means Fire Safety, Comfort, and Durability.

Build with Natco Tile Because They Are

Fireproof.	Imperishable.	Adaptable.
Moisture-proof.	Attractive.	Very strong.
Vermin-proof.	Warm in Winter.	Inexpensive.
Sound-proof.	Cool in Summer.	Fuel saving.
Sanitary.	Quickly laid.	Used without furring.
Easy to wire or arrange for plumbing.		

Methods of Using Natco Hollow Tile

For exterior bearing walls of buildings stuccoed on the exterior.

For exterior bearing walls of buildings without stucco.

For exterior bearing walls of buildings with an exterior veneer of face brick.

For interior floors and partitions.

For construction of fireproof roofs.

For foundation walls below grade, and for basement partitions.



Natco Rock Face Glazed Building Tile.



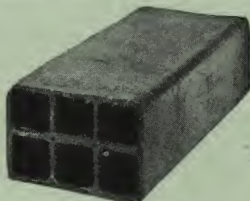
Two-story House of Natco Second Quality Conduit Tile.

Cost of Natco Buildings

To be brief, the first cost is the last cost. To be more specific, Natco construction runs, as a rule, from five to ten per cent higher than frame buildings, and about ten per cent lower than brick buildings.

A house built of Natco throughout,—that is, walls, partitions, floors, sills, lintels, etc.,—will last for generations. The saving in fuel, due to dead air spaces in the walls, and the saving in insurance and upkeep, will, in the course of a few years, offset the increased cost of construction. Then, too, the health of the family is better, as sudden atmospheric changes are avoided. Fireproof construction adds greatly to the value of the property. It pays to build of Natco Hollow Tile.

Send us sketches or plans of the house you contemplate—we'll make you an estimate on the type and quantity of Natco Tile needed.



Natco 6-Way Second Quality Conduit Tile.



Typical Town Home Built of Natco Glazed Hollow Building Tile.

How Natco Tile Meet Every Building Requirement.

Here are some questions you will probably ask—and the answers.

1. Will Natco Buildings withstand great strains, such as the bursting pressure of wheat in bins, wind pressure, tornadoes, vibration of machinery, etc.?

Yes. Properly erected, no stronger buildings exist for general farm purposes than those built of Natco Hollow Tile.

2. How long will Natco Buildings last?

They will last for generations if carefully erected.

3. Repairs?

None except for those parts built of wood.

4. Are Natco Buildings fireproof?

Yes. Worth something, isn't it, when you have a full mow or grain bin?



Building with Natco XXX Hollow Tile—the Work is Quick,
Neat and Money-saving.

5. What are the comparative costs of material and labor?

As Natco Tile are many times the size of ordinary brick, and very much lighter than either wood or stone, space for space, they are much easier unloaded, hauled and erected—and with less labor.

6. Are Natco Buildings attractive?

Very. The rich color of the tile contrasts with the markings of mortar in a very pleasing manner. Natco Buildings add greatly to the value of a farm.

7. Are these buildings rat-proof?

Yes, proof against all vermin.

8. Are they sanitary?

Yes, for Natco Tile do not hold moisture, dust or odors and are easily washed down.

9. Adaptable to any style of building?

Just as much as any other building material, depending, of course, upon the plans.



Natco Dairy Barn and Natco Imperishable Silo of Mrs. A. V. H. Jones

The Satisfaction of a "Natco" Farm

Cleveland, Ohio, Dec. 2, 1914.

National Fire Proofing Company,
Pittsburgh, Pa.

Gentlemen:—Just a word about the corn crib I bought of you. It is eminently satisfactory in every respect. Not only does it add to the beauty of the group plan of buildings, but it is also more convenient than any other corn crib that we have ever had any experience with. My farmer speaks of it in terms of commendation, and it is attracting a great deal of attention throughout the county.

I wish to state that I have been encouraged to build this corn crib from my experience with the Natco Tile in building a silo, pig pen, and ice house, which have proven their durability, desirability, and economy in the years that they have been in use. This is particularly true of the silo, where the last pound of ensilage has been found to be as sweet as the first. The ice house has proven



Chester, Mich. Barn Built of 8 x 8 x 16 inch Natco Glazed Building Tile.

the effectiveness of the tile for that purpose in carrying the ice all the way through the hot summer months. Our pig pen we find is very sanitary and easily kept clean.

You will be interested to know that the tiling which we purchased from your Company and put down two years ago is proving its value in more ways than one. The yield of our corn acreage this summer has been 33 1-3 per cent over last summer's, and 60 per cent over the year previous to the tiling of the land. One of our neighbors has the ordinary two-inch tile, not vitrified, under land similarly situated, and the results are not within 50 per cent of ours. I believe this justifies the contention of your tile expert as to the benefits to the land of the three-inch tile for under-soil ventilation as well as drainage.

Lotusdale Farm is practically an experimental farm in the eyes of the farmers of the county, and they are watching the results of the Natco material.

Very truly yours,

J. K. TURNER.



Natco Barn, 36 ft. x 100 ft., and Shed on Farm of J. B. Berryman, Downer's Grove, Ill.

Many Uses for Natco Tile

Fertilizer Tanks.	Wind Breaks.	Culverts.
Retaining Walls.	Garden Walls.	Chimneys.
Runways.	Cisterns.	Slop Tanks.
Feeding Floors.	Well Curbs.	Sheep Sheds.
Cesspools.	Root Cellars.	Tool Houses.
Septic Tanks.	Mushroom Cellars.	Hog Shelters.

These are in addition to the other subjects mentioned in this book.

It's really surprising to how many uses Natco Hollow Tile can be put. Many farmers when ordering our tile for a building will order extras and use them for miscellaneous purposes as above mentioned. Remember, Natco Tile though extremely hard and everlasting can be evenly broken with the proper tools. They are thus adaptable to almost any situation.



Same Buildings as Shown Opposite. Barn of Second Quality Conduit Tile.
Note also the Tile Silo and Chute.

Your Contractor

Hand him this book. Ask him for figures on Natco construction. Send us his name. If you are not personally acquainted with him, make sure that the contract is specific. We suggest the following as a simple yet satisfactory wording:—

Date.....

(Your name).....

We propose to do the (excavating, masonry, woodwork, tile and iron work, etc.).....to be required on (Mr.....'s barn).....located at.....according to plans and specifications furnished by (architect or designer's name).....for the sum of.....Dollars
To be paid.....

Respectfully submitted,

.....(Contractor's name.)



Filling Natco Corn Crib through the Hinged Sections of Galvanized Iron Roof.

The Natco Hollow Tile Corn Crib

If you could figure the yearly loss of corn from rats, mice, and mildew in the ordinary wooden corn crib, the results would astonish you, and the advantages of the Natco Hollow Tile Corn Crib would at once be evident. This crib is rat and mouse-proof, decay-proof, and fireproof. It is perfectly ventilated and effectively excludes rain and snow. It has no dark or moldy corners and no cracks or crevices to harbor insects. "Clean as a whistle"—and easily kept so.

Not only does the Natco Corn Crib protect from rodents, rain, etc., but it keeps corn in better color, making better seed and a higher selling quality of grain, free from dirt, mildew, and odor.

Important structural advantages of this crib are that it is simple in composition, quickly erected, and requires no lining. It will hold shell corn as well as ear corn.



Removing Corn from Small Service Door.

Note how convenient it is for filling and emptying. You fill at the top and empty at the bottom—the natural and sensible way. It saves many long hours of shoveling and many weary steps carrying bags and measures to and fro. Its dimensions are uniform, too, making it easy to estimate the amount of corn it contains. This is truly the crib of no mistakes and it shows a constantly increasing profit on the investment.

As to appearance, it is like the Natco Imperishable Silo, a valuable addition to your group of farm buildings. The richly colored tile, marked with the sharp white lines of mortar, and the trim metal roof, make a striking appearance.

The price of a Natco Corn Crib is within the reach of every farmer. Through the saving of grain, the cost of the crib is soon made up. Remember, it is vermin-proof, rat-proof, fireproof, needs no painting, and will last a lifetime without repairs.

Details as to dimensions, capacity, construction, etc., furnished upon request.



Natco Foundations, 36 ft. x 48 ft., Engine House, 18 ft. x 24 ft., and Silo, 14 ft. x 38 ft., on the Adams Farm, Racine, Wis.

Foundations

The above illustration is a splendid example of how farm buildings gradually become Natco buildings. Notice the foundation of the barn, and the engine house built of Natco Hollow Tile, also the Natco Imperishable Silo. The usual way of building up a Natco farm is to replace each frame structure, as soon as it gets beyond repair, with a Natco building. Almost before it's realized, then, the owner has a group of buildings that will endure for generations.

As to foundations, Natco Hollow Tile are the logical material. They will last for all time. They do not crumble, crack, decay, nor do they absorb moisture. Any mason can build a Natco foundation more quickly and more cheaply than one of brick, stone, or concrete. Natco Hollow Tile are exceedingly strong, and will readily withstand the pressure of masonry work four or five stories high.

As each of your buildings wears out, replace it with one of Natco Hollow Tile. The "Natco" habit is one which grows—and one you'll never regret.



Splendid Greenhouse of Wm. Johnson, Hackensack, N. J. Natco XXX Tile, Stuccoed.

Greenhouses

Did it ever occur to you that a greenhouse is a regular indoor garden? Of course one is not needed on the average farm, but where the farmer is specializing, and a greenhouse is needed, it can best be built of Natco Hollow Tile. Once more we have a demonstration of the value of the dead air spaces in the walls—reducing fuel cost and effectually insulating the entire building. Notice the illustration above. This greenhouse is built of Natco XXX Hollow Tile, and stuccoed. Is it not a beauty? Write us for greenhouse ideas.

Hot Beds

Hotbeds or glass gardens are becoming more popular all the time. It is truly a delight to have fresh vegetables out of season, and a hotbed is very little trouble. The three great essentials are protection from the wind and cold, a bed dug deep and filled with a two-foot layer of fresh manure, and sash that permit of easy ventilation. Natco Hollow Tile, because of the dead air spaces, are unsurpassed for forming the walls of hotbeds.



Natco Buildings on Dinwiddie Poultry Farm, Metuchen, New Jersey.

Natco Chicken Houses

Let us review briefly the essentials of a model poultry house. Then you can see why Natco Hollow Tile make for greater success with poultry:—

Sanitation. Of all the factors that mean success, none is of more importance than absolute cleanliness. Natco Hollow Tile are easily washed down. They have no cracks to harbor germs, and they do not absorb odors of any kind.

Ventilation. A great many poultry houses are exceedingly hot in the daytime and very cold at night. To regulate temperature various devices for creating or shutting off drafts are employed. This is bad. Natco Poultry Houses, due to the dead air spaces in the walls, maintain a very even temperature. A permanent system of ventilation may be installed by which no drafts can menace the fowl.

Convenience. Natco Hollow Tile are made in so many sizes and shapes that they permit of any variety of building dimensions to accommodate poultry appliances, trap doors, ventilators, etc.



Interior of One of the Natco Buildings Shown Opposite.

Light. Natco Tile offer just as much opportunity for admitting sunlight as any other type of building. Open fronts and wooden roofs which may be raised are perfectly feasible.

Cost. This depends a good deal upon the location; also upon labor. It must be remembered that one Natco Hollow Tile is several times larger than a building brick, and consequently requires less handling and less skill in setting; aside from this the material used is cheaper than brick or other forms of masonry construction. Then think of the durability—once up, always up. No painting, and practically no repairs.

Before you build any more stationary poultry houses, you will do well to consult us about Natco construction. The way to build up winter egg production is first to provide for the fowl's comfort; Natco Poultry Houses encourage laying—the birds thrive in the more even temperature and are happy and contented.

The houses shown above and on page 32 are typical of Natco construction and are located on one of the largest poultry farms in the East. Note their substantial, roomy and attractive appearance. Fire risk is eliminated and greater poultry health and profits are a fixed certainty.



Inexpensive, Sanitary Natco Creamery, 60 ft. x 125 ft., at Ottawa, Ill.

Natco Milk Houses, Dairies, and Creameries

Perfect dairy buildings and apparatus are often required by law. They are, moreover, the best investment a dairyman can make. The good light, ventilation, cleanliness, even temperature and durability of Natco buildings are a source of profit.

How do you handle your milk? Do you ever get a "sour" tag on your returned empty cans? Have you proper cooling facilities?

The right way to handle milk is in a milk house. This may be built over the well, between a well and barn, or in any place convenient to the well. If you can have an ice house near, so much the better. At a comparatively small cost, you can erect a Natco milk house—sanitary, cool in summer, and protected against freezing in winter; convenient, keeping milk sweeter and making profits bigger.

Once again, the dead air spaces of the Natco Hollow Tile, maintaining an even temperature within the building, make Natco Tile best for this purpose. Then, too, the tile will absorb no odors,



Natco Milk House, 10 ft. x 14 ft., and Twin Silos, Each 12 ft. x 28 ft., on
A. A. Fulk's Farm, South Bend, Ind.

are easily washed down, cannot decay, crack, crumble, or harbor germs, and are in every way splendidly adapted to the sanitary handling of milk.

Floors, tanks, engine bases, etc., are of course constructed of concrete, but those parts which can be made of tile will prove more satisfactory if made of this material, because of their non-absorption of odors and moisture.

Whether you are a farmer with a daily production of only a few cans, or represent a large co-operative association or corporation, we can assist you in determining the type of building best suited to your requirements.

In large creameries, dairies, and cold storage warehouses, where the expense of refrigeration is considerable, the great insulating qualities of Natco Hollow Tile, with their dead air spaces, will prove them the building material of greatest economy. Before figuring on a building, write us. Learn wherein a saving can be made, not only in the original cost of your building but in daily operating expenses.



General Store and Post Office of Natco Glazed Building Tile at Spartansburg, Pa.

Natco Shops and Stores

Natco construction originated in the cities. We are more experienced in the building of shops and stores than in any other line. From the building of small structures we gradually enlarged, and were among the pioneers in fireproofing skyscrapers. As stated in the Introduction, we have fireproofed the majority of the great buildings and skyscrapers of North America, as well as all types of commercial buildings, public works, residences, etc. Thus our experience covers a wide field, and we can offer you some splendid advice on any type of building—whether for a factory, warehouse, elevator, general store building, or any other purpose.

The above illustration is a good type of a small-town general store made of Natco Hollow Tile. As most small towns have little or no fire-fighting facilities, the item of fireproofing should be a determining factor.

Town and village boards, figuring on public buildings, will find Natco Hollow Building Tile just the thing. Ask us for information and estimates.



Up-to-date Natco Dairy at Asbury Park, N. J.

Our Policy

We have endeavored to make Natco products the standard of construction, and our dealings the standard of fairness, and we have succeeded. Our claims as to durability, low cost of upkeep, convenience, attractiveness, etc., are involved in a guarantee and a policy of satisfaction to every customer, backed by the entire resources of the National Fire Proofing Company.

Our Guaranty

All Natco products are to be exactly as represented, and to conform to the strength and dimensions given in our catalogs and general statements. As to the Natco Imperishable Silo—if, after said silo is erected upon a proper foundation and constructed in accordance with printed instructions furnished the purchaser, and not filled within two weeks after completion, it breaks, through ensilage pressure or damage by winds, all losses sustained thereby, except damage to roof, are made good to the purchaser. (See full guaranty in silo catalog.)



Garage, 40 ft. x 80 ft., of Dwight Hamilton, Pecatonica, Ill. Built of Natco Glazed Building Tile.

Natco Garages

Any one who can afford an automobile can certainly afford a good place in which to house it. Indeed, it is very necessary that the machine should be thoroughly protected while not being used. Here are the reasons for building a Natco garage:—

1. Natco Hollow Tile Buildings are dry, warm and clean.
2. Foundation and walls are permanent. There need be no sills or boards to rot.
3. Construction no more expensive than for any other material properly put together.
4. No repairs or painting.
5. Very attractive in appearance.
6. Absolutely fireproof, protecting the machine and reducing insurance cost.
7. They comply with building laws.

There is a great number of garages of all sizes made of Natco Hollow Tile. Some of them serve not only as a place in which to keep the automobile, but as a machine shop for making general farm repairs.



Interior of Garage Shown on Opposite Page—Warm, Dry,
Clean and Safe.

Natco Tool Sheds

A building such as the one pictured above would make a most excellent tool shed. Prominent manufacturers of agricultural implements state that the average life of many farm machines, such as binders, mowers, hay loaders, etc., is about one-fourth what it should be. This is due either to poor housing or no housing at all. According to this estimate a tool shed of Natco Hollow Tile would soon pay for itself on a good sized farm in the saving of machinery. Take a binder, for instance. The cost of the machine will average within ten to twenty dollars of the cost of a Natco shed in which to store it. If the binder will last eight years instead of two, when housed in a Natco shed, isn't there a good profit on the Natco investment? Certainly! And for a small additional cost you can have a larger building for several machines.

The first time work gets a little slack, better build a Natco garage or tool shed. We'll give you general instructions, and with the help of a competent mason and some ordinary farm labor, you can put up such a building in a very short time.



Natco Manure Shed and Natco Imperishable Silo on Farm of Millard Patrick, Webberville, Mich.

Natco Manure Sheds

The above illustration is of a building which is of the greatest importance to the fertility of the farm. The various Experiment Stations estimate that the greatest of all farm waste is that of the leaching of manure. Exposed to the air and weather, it soon loses its most valuable properties, chief of which is Nitrogen. A Natco Manure Shed will pay for itself the very first season.

Natco Oat Bins

You know the value of a tight oat bin for giving the best color to oats. We have quite a demand for Natco Imperishable Silo Tile to be used for making these bins. By simply filling in the door space, and connecting the steel reinforcing bands in a special way, which we prescribe, you have a bin that will withstand any grain pressure brought to bear upon it. As proof of the efficiency and strength of our grain storage buildings, turn to page 45 and note that the combined capacity of the grain elevators that we have built in North America is over 30,000,000 bushels.



Natco Ice House of Glazed Building Tile at Webberville, Mich.

Natco Ice Houses

Your family needs ice for daily use just as much as your city relatives—in fact, more so, as the perishable eatables which you must buy in town cannot be replenished by running to a corner store. Putting up ice comes at a dull season. Build an ice house and put your own men and horses to work storing ice for use in the cooling of milk and to sell. It pays.

In the construction of ice houses the factor of insulation is paramount. Natco Hollow Tile construction, with its confined dead air, provides perfect insulation against transmission of heat. One thickness of these tile is sufficient—two or three separate walls are not necessary. Thus there is a great saving in first cost by using Natco Hollow Tile. And remember, there is no rotting or crumbling of the tile as in the case of wood or cement structures—the Natco Ice House is built to last.

The ice house is one of those farm conveniences which is fast becoming a necessity—one of those things which will “keep the boys on the farm.” Build one this year.



Natco Glazed Tile
Barn—Ohio.

Natco Glazed Tile
Barn—Indiana.

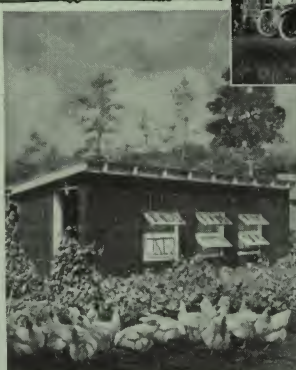


Natco Meat
House—Illinois.



Natco Oil House,
25 ft. x 50 ft.—
Illinois.

Natco Garage,
44 ft. x 36 ft.—
Unglazed Tile—
Illinois.



Natco Poultry
House—Second
Quality Conduit
Tile—Mass.



Natco Stuccoed
Garage—
West Virginia.



Natco Milk House,
29 ft. x 30 ft.—
Indiana.



Top View:—
Natco Garage,
48 ft. x 100 ft.—
Wisconsin.

Center View:—
Natco Barn
Foundation—
Indiana.



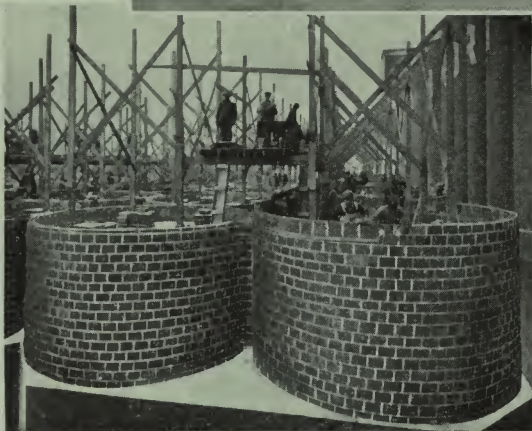
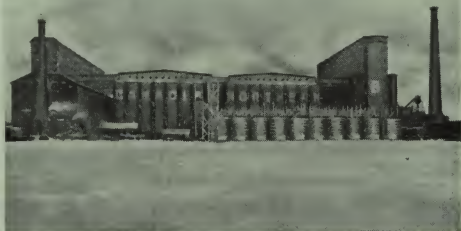
Lower View:—
Natco Blacksmith
Shop, 28 ft. x 30 ft.
—Illinois

8x8x16 in. Natco
Glazed Hollow
Building Tile
used in these
buildings.



Natco Grain Elevators—Canadian Northern Ry., Port Arthur, Ont.

There are over forty of them in this country and Canada. Total capacity over 30,000,000 bushels.



We invite special correspondence on the building of grain elevators.



**The Woolworth Building
New York City**

Cass Gilbert, Architect
55 stories; 775 feet in
height; covers a ground
area of over 30,000 sq. feet.
Estimated cost, \$7,500,000.

Fireproofed with

**Natco
Hollow Tile**

Over 30,000 tons of Natco
Hollow Tile were used in
fireproofing this gigantic
structure—the largest office
building in the world.

A large percentage of the
skyscrapers of North America
are fireproofed with
Natco products—pretty good
proof that expert builders
believe in Natco strength
and durability.

Build your farm buildings
of Natco Hollow Tile. Take
advantage of our vast experience.

**National
Fire Proofing
Company**

Organized 1889

**Main Office
Pittsburgh, Pa.**

Branches

New York, N. Y.
Chicago, Ill.
Washington, D. C.
Columbus, O.
Boston, Mass.
Philadelphia; Pa.
Detroit, Mich.
Canton, O.
Syracuse, N. Y.
Toronto, Ont., Canada

Charles
Advertising Service
New York

